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## State of Wisconsin

## Department of Health Services

Jim Doyle  
Governor

Karen E. Timberlake  
Secretary

October 4, 2009

Scott Hansen  
U.S. Environmental Protection Agency  
Region 5 Office  
77 W. Jackson Blvd, SR-6J  
Chicago, IL 60604-3507

EPA Region 5 Records Ctr.



370804

Dear Scott,

I am writing to provide comments from the Wisconsin Department of Health Services on the document titled "NSPW Comments on EPA Proposed Remedial Action Plan for Ashland/Northern States Power Lakefront Site, Ashland, Wisconsin", dated August 17, 2009.

Specifically, I wish to address Section 2.2, pages 11 to 15, and titled "Sediments and Surface Water Do Not Pose a Risk to Human Health." This section states "there are no unacceptable human health risks to either a swimmer or wader from exposure to sediments or surface water," and bases this statement solely on the exposure risk calculations presented in NSPW's September 2007 Human Health Risk Assessment (HHRA) report, but dismisses the report's hypothetical risk calculations for non-aqueous phase liquids (NAPL) surface in surface water as "unrealistic, technically unjustifiable, and not based on *any* sheen data." DHS flatly disagrees with this section's title and the above statements, and DHS continues to view that surface water and sediment conditions at the Ashland/NSP Lakefront site pose a *human health hazard*.

In 2007 DHS provided comments on various drafts of Xcel Energy's Remedial Investigation (RI) and HHRA reports. DHS noted a substantial shortcoming with the draft RI report that sampling efforts failed to collect data surface water data that adequately characterized the constituents of coal tar slick/NAPL events at the site. While the release from impacted sediments to surface water of such coal tar slick events are not common at the site, they can be generated by either human or natural forces, have been observed during sediment sampling (both from watercraft and through ice during winter months), and described by community members, and on one occasion were photographically documented.

DHS has also expressed concerns that the various drafts of the HHRA report did not adequately address and assess the human health risks of direct contact with coal tar slick impacted surface water. NSPW acknowledged that coal tar slick/NAPL events do occur on surface water at the site, but was unable to collect a sample that characterized the concentrations of constituents during these events. NSPW then approached state and federal agencies and proposed the alternative method of substituting NAPL-impacted groundwater data from the Copper Falls aquifer and using this data to calculate hypothetical human health risks from exposure to coal tar slicks in surface water. To avoid further delays in completing the RI and HHRA, agencies concurred with this NSPW proposal.

In comments on the proposed plan, NSPW now inaccurately implies this approach was requested by agencies, declares this data substitution to be "inadequate", and rejects the findings of their own proposed model for the human health risk assessment of surface water at the site. In their comments, NSPW puts forth a more recently developed approach for estimating the qualitative and quantitative aspects of contaminant constituents in coal tar slicks in surface water at the site, which results in findings that drastically differ from NSPW's September 2008 HHRA. While there may be some merit to this latest NSPW proposed estimate for deriving contaminant concentrations in surface water, it is very unusual to derive environmental contaminant data following such an approach. Furthermore, NSPW should have proposed this approach prior to NSPW completing the RI and HHRA reports. DHS does not support nor concur with NSPW's recently proposed approach. Until coal-tar slick impacted surface water is collected at the site, DHS recommends using the approach for assessing human health risks to surface water coal-tar slicks that was previously brought forward by NSPW and described in the their own September 2007 HHRA report.

The NSPW Proposed Plan comments are also critical of the exposure time, frequency, and duration used by the HHRA for estimating risks for exposure to coal-tar slicks/NAPL in surface water. It is the opinion of DHS that coal tar slicks pose the greatest human health risks of contaminated environmental media at the Ashland/NSP Lakefront site, and this includes unacceptable acute health risks from a *single* exposure. An inherent flaw and shortcoming of all quantitative human health risk assessments conducted for coal-tar contaminated sediments at former manufactured gas plants (MGP) is the difficulty of quantifying the acute human health risks from direct, dermal contact with wide ranging mixture of aromatic volatiles and semi-volatiles (PAHs) typical of non-aqueous coal tar slicks that are released from impacted sediments. The empirical data is clear that a single instance of direct dermal contact with constituents common in coal tar slicks/NAPL can cause irritation and damage to the skin. DHS' opinion is supported by the findings of the 2003 Public Health Assessment for the Ashland/Northern States Power, as issued by the U.S. Agency for Toxic Substances and Disease Registry. The Public Health Assessment concluded that tar slicks in surface water are a "human health hazard," due to clear evidence of adverse health effects from regular or a single instance of direct contact.

Please contact me if you wish to discuss further my response to the NSPW comments to the Proposed Plan. I can be contacted at 608-266-3489 or [Henry.Nehls-Lowe@DHS.Wisconsin.gov](mailto:Henry.Nehls-Lowe@DHS.Wisconsin.gov).

Sincerely,



Henry Nehls-Lowe  
Bureau of Environmental and Occupational Health  
Division of Public Health

cc: Terry Kramolis – Ashland County Department of Health & Human Services  
Jamie Dunn – Department of Natural Resources, Northern Regional Office  
John Robinson – Department of Natural Resources